5'	ATG Met	GGA Gly	348 ATG Met	GCC	TG(	35 C CT s Le	T AC	G AT r Me	36 G AC t Th	A C	LA AT .u Me	~ ~	75 kG GG ku Gl	A AC. Y Th	33 A TCC I Se	-	C TC	393 T TCT r Ser
	ATA Ile	тат Туг	402 CAG Gln	AAT	Gly	41 GAC Asi	ידע יו	T TC e Se:	42 r GG r Gl	A . A	T GC n Al	42 C AA a As		r Ato	438 G AAC C Lys	-	A AT.	447 A GAT e Asp
	CCA Pro	GTT Val	456 CTT Leu	CAG Gln	GTG Val	465 TAT Tyr	مال ر	Т ТА( 1 Ту1	476 CAC His	י רי ידירי	C CT r Le	48 T GG u Gl		A TC1	492 GAC Glu	_	A GAT A Asg	501 TAT Tyr
	CTG Leu	ACC Thr	510 TTT Phe	CCA Pro	TCT Ser	519 GGG Gly	GAC	TAT	528 GTM Val		A GA / Gl:	53 A GA u Glu		TGT Cys	546 ATT		GCT	555 TCT Ser
	AAA Lys	GCT Ala	564 TGT Cys	GGT Gly	ATC Ile	573 ACA Thr	ССТ	GTG Val	582 TAT Tyr		C AAC S Asi	59: ATC 1 Met		GCT Ala	600 TTA Leu		AGT Ser	609 GAA Glu
5	ACA ( Thr (	GAA	618 AGG Arg	ATC Ile	TGG Trp	627 TAT Tyr	CCA Pro	CCC Pro	636 AAC Asn	ראיז	C GTC	645 TTC Phe		ATA Ile	654 GAT Asp		TCA Ser	663 ACC Thr
,2 ,2	AGG (	CAT .	672 AAT Asn	GTA Val	CTC Leu	681 TAC Tyr	AGA Arg	ATA Ile	690 AGA Arg	TATAL	TAC Tyr	699 TTT Phe	CCT Pro	CGT Arg	708 TGG Trp	TAT Tyr	TGC Cys	717 AGT Ser
0	GC A	AGC .	726 AAC Asn	AGA Arg	GCC Ala	735 TAT Tyr	CGG Arg	CAT His	744 GGA Gly	ATA Ile	TCT Ser	753 CGA Arg	GGT Gly	GCT Ala	762 GAA Glu	GCT Ala	CCT Pro	771 CTT Leu
C L	TT G eu A	AT C	780 GAC 1	MTT ( Phe '	GTC Val	789 ATG Met	TCT Ser	TAC Tyr	798 CTC Leu	TTT Phe	GCT Ala	307 CAG Gln	TGG Trp	CGG Arg	816 CAT His	GAT Asp	TTT Phe	825 GTG Val
C.	AT G	S GA T	34 'GG 2	ATA A	<u> </u>	843 GTA	CCT	CTC	852 ACT	Car	C > >	861	CAG Gln		870			879
A:	rg a	8 CA G	88 TG T	TA C	SAT	897 ATG	ATY:	2G2	906	ccc	222	915	AAC Asn		924			933
GC	C A	9 IC T.	42 AT A	AC T	T.	951 ATC	AGC 1	ፐልሮ	960 AAG	<b>2</b> C 2	TTC	969	CCA Pro	CNA	978			987

# FIGURE 1A

AAG ATC CAA GAC TAT CAT ATT TTG ACA AGG AAG CGA ATA AGG TAC AGA TTT CGC Lys Ile Gln Asp Tyr His Ile Leu Thr Arg Lys Arg Ile Arg Tyr Arg Phe Arg AGA TTT ATT CAG CAA TTC AGC CAA TGC AAA GCC ACT GCC AGA AAC TTG AAA CTT Arg Phe Ile Gln Gln Phe Ser Gln Cys Lys Ala Thr Ala Arg Asn Leu Lys Leu AAG TAT CTT ATA AAT CTG GAA ACT CTG CAG TCT GCC TTC TAC ACA GAG AAA TTT Lys Tyr Leu Ile Asn Leu Glu Thr Leu Gln Ser Ala Phe Tyr Thr Glu Lys Phe GAA GTA AAA GAA CCT GGA AGT GGT CCT TCA GGT GAG GAG ATT TTT GCA ACC ATT Glu Val Lys Glu Pro Gly Ser Gly Pro Ser Gly Glu Glu Ile Phe Ala Thr Ile ATA ATA ACT GGA AAC GGT GGA ATT CAG TGG TCA AGA GGG AAA CAT AAA GAA AGT Ile Ile Thr Gly Asn Gly Gly Ile Gln Trp Ser Arg Gly Lys His Lys Glu Ser GAG ACA CTG ACA GAA CAG GAT TTA CAG TTA TAT TGC GAT TTT CCT AAT ATT ATT Glu Thr Leu Thr Glu Gln Asp Leu Gln Leu Tyr Cys Asp Phe Pro Asn Ile Ile GAT GTC AGT ATT. AAG CAA GCA AAC CAA GAG GGT TCA AAT GAA AGC CGA GTT GTA Asp Val Ser Ile Lys Gln Ala Asn Gln Glu Gly Ser Asn Glu Ser Arg Val Val ACT ATC CAT AAG CAA GAT GGT AAA AAT CTG GAA ATT GAA CTT AGC TCA TTA AGG Thr Ile His Lys Gln Asp Gly Lys Asn Leu Glu Ile Glu Leu Ser Ser Leu Arg GAA GCT TTG TCT TTC GTG TCA TTA ATT GAT GGA TAT TAT AGA TTA ACT GCA GAT Glu Ala Leu Ser Phe Val Ser Leu Ile Asp Gly Tyr Tyr Arg Leu Thr Ala Asp GCA CAT CAT TAC CTC TGT AAA GAA GTA GCA CCT CCA GCC GTG CTT GAA AAT ATA Ala His His Tyr Leu Cys Lys Glu Val Ala Pro Pro Ala Val Leu Glu Asn Ile CAA AGC AAC TGT CAT GGC CCA ATT TCG ATG GAT TTT GCC ATT AGT AAA CTG AAG Gln Ser Asn Cys His Gly Pro Ile Ser Met Asp Phe Ala Ile Ser Lys Leu Lys AAA GCA GGT AAT CAG ACT GGA CTG TAT GTA CTT CGA TGC AGT CCT AAG GAC TTT Lys Ala Gly Asn Gln Thr Gly Leu Tyr Val Leu Arg Cys Ser Pro Lys Asp Phe

#### FIGURE 1B

1653 1662 1671 1530 AAT AAA TAT TTT TTG ACT TTT GCT GTC GAG CGA GAA AAT GTC ATT GAA TAT AAA Asn Lys Tyr Phe Leu Thr Phe Ala Val Glu Arg Glu Asn Val Ile Glu Tyr Lys .1707 1716 1725 1734 CAC TGT TTG ATT ACA AAA AAT GAG AAT GAA GAG TAC AAC CTC AGT GGG ACA AAG His Cys Leu Ile Thr Lys Asn Glu Asn Glu Glu Tyr Asn Leu Ser Gly Thr Lys 1761 1770 1779 AAG AAC TTC AGC AGT CTT AAA GAT CTT TTG AAT TGT TAC CAG ATG GAA ACT GTT Lys Asn Phe Ser Ser Leu Lys Asp Leu Leu Asn Cys Tyr Gln Met Glu Thr Val 1815 1824 1833 1842 CGC TCA GAC AAT ATA ATT TTC CAG TTT ACT AAA TGC TGT CCC CCA AAG CCA AAA Arg Ser Asp Asn Ile Ile Phe Gln Phe Thr Lys Cys Cys Pro Pro Lys Pro Lys 1869 1878 1887 1896 GAT AAA TCA AAC CTT CTA GTC TTC AGA ACG AAT GGT GTT TCT GAT GTA CCA ACC Asp Lys Ser Asn Leu Leu Val Phe Arg Thr Asn Gly Val Ser Asp Val Pro Thr 1923 1932 1941 1950 TCA CCA ACA TTA CAG AGG CCT ACT CAT ATG AAC CAA ATG GTG TTT CAC AAA ATC Ser Pro Thr Leu Gln Arg Pro Thr His Met Asn Gln Met Val Phe His Lys Ile 1977 1936 1995 AGA AAT GAA GAT TTG ATA TTT AAT GAA AGC CTT GGC CAA GGC ACT TTT ACA AAG Arg Asn Glu Asp Leu Ile Phe Asn Glu Ser Leu Gly Gln Gly Thr Phe Thr Lys 2031 2040 2049 2058 ATT TTT AAA GGC GTA CGA AGA GAA GTA GGA GAC TAC GGT CAA CTG CAT GAA ACA Ile Phe Lys Gly Val Arg Glu Val Gly Asp Tyr Gly Gln Leu His Glu Thr 2085 2094 2103 2112 GAA GTT CTT TTA AAA GTT CTG GAT AAA GCA CAC AGG AAC TAT TCA GAG TCT TTC Glu Val Leu Leu Lys Val Leu Asp Lys Ala His Arg Asn Tyr Ser Glu Ser Phe 2130 2139 2148 2157 TTT GAA GCA GCA AGT ATG ATG AGC AAG CTT TCT CAC AAG CAT TTG GTT TTA AAT Phe Glu Ala Ala Ser Met Met Ser Lys Leu Ser His Lys His Leu Val Leu Asn 2193 2202 2211 TAT GGA GTA TGT GTC TGT GGA GAC GAG AAT ATT CTG GTT CAG GAG TTT GTA AAA Tyr Gly Val Cys Val Cys Gly Asp Glu Asn Ile Leu Val Gln Glu Phe Val Lys 2247 2256 2265 TTT GGA TCA CTA GAT ACA TAT CTG AAA AAG AAT AAA AAT TGT ATA AAT ATA TTA Phe Gly Ser Leu Asp Thr Tyr Leu Lys Lys Asn Lys Asn Cys Ile Asn Ile Leu

## FIGURE 1C

TGG AAA CTT GAA GTT GCT AAA CAG TTG GCA TGG GCC ATG CAT TIT CTA GAA GAA Trp Lys Leu Glu Val Ala Lys Gln Leu Ala Trp Ala Met His Phe Leu Glu Glu AAC ACC CTT ATT CAT GGG AAT GTA TGT GCC AAA AAT ATT CTG CTT ATC AGA GAA Asn Thr Leu Ile His Gly Asn Val Cys Ala Lys Asn Ile Leu Leu Ile Arg Glu GAA GAC AGG AAG ACA GGA AAT CCT CCT TTC ATC AAA CTT AGT GAT CCT GGC ATT Glu Asp Arg Lys Thr Gly Asn Pro Pro Phe Ile Lys Leu Ser Asp Pro Gly Ile AGT ATT ACA GTT TTG CCA AAG GAC ATT CTT CAG GAG AGA ATA CCA TGG GTA CCA Ser Ile Thr Val Leu Pro Lys Asp Ile Leu Gln Glu Arg Ile Pro Trp Val Pro CCT GAA TGC ATT GAA AAT CCT AAA AAT TTA AAT TTG GCA ACA GAC AAA TGG AGT Pro Glu Cys Ile Glu Asn Pro Lys Asn Leu Asn Leu Ala Thr Asp Lys Trp Ser TTT GGT ACC ACT TTG TGG GAA ATC TGC AGT GGA GGA GAT AAA CCT CTA AGT GCT Phe Gly Thr Thr Leu Trp Glu Ile Cys Ser Gly Gly Asp Lys Pro Leu Ser Ala CTG GAT TCT CAA' AGA AAG CTA CAA TTT TAT GAA GAT AGG CAT CAG CTT CCT GCA Leu Asp Ser Gln Arg Lys Leu Gln Phe Tyr Glu Asp Arg His Gln Leu Pro Ala CCA AAG TGG GCA GAA TTA GCA AAC CTT ATA AAT AAT TGT ATG GAT TAT GAA CCA Pro Lys Trp Ala Glu Leu Ala Asn Leu Ile Asn Asn Cys Met Asp Tyr Glu Pro GAT TTC AGG CCT TCT TTC AGA GCC ATC ATA CGA GAT CTT AAC AGT TTG TTT ACT Asp Phe Arg Pro Ser Phe Arg Ala Ile Ile Arg Asp Leu Asn Ser Leu Phe Thr CCA GAT TAT GAA CTA TTA ACA GAA AAT GAC ATG TTA CCA AAT ATG AGG ATA GGT Pro Asp Tyr Glu Leu Leu Thr Glu Asn Asp Met Leu Pro Asn Met Arg Ile Gly GCC TTG GGG TTT TCT GGT GCC TTT GAA GAC CGG GAT CCT ACA CAG TTT GAA GAG Ala Leu Gly Phe Ser Gly Ala Phe Glu Asp Arg Asp Pro Thr Gln Phe Glu Glu 

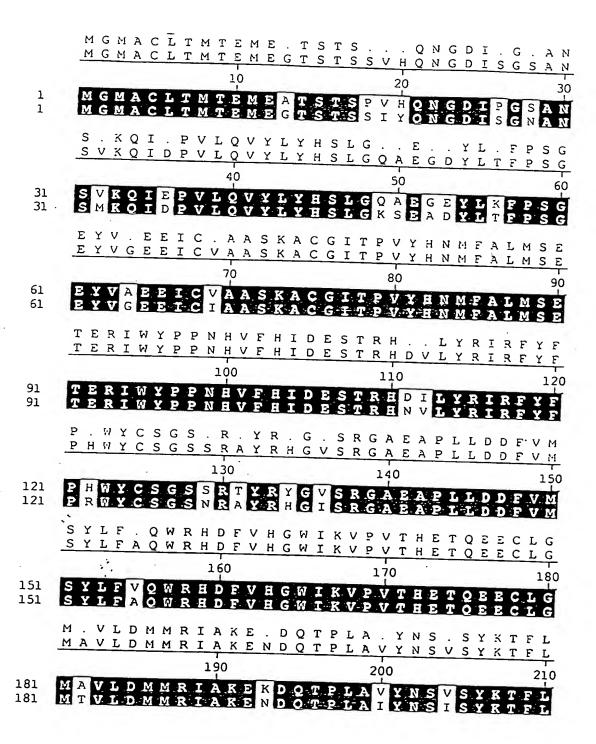
### FIGURE 1D

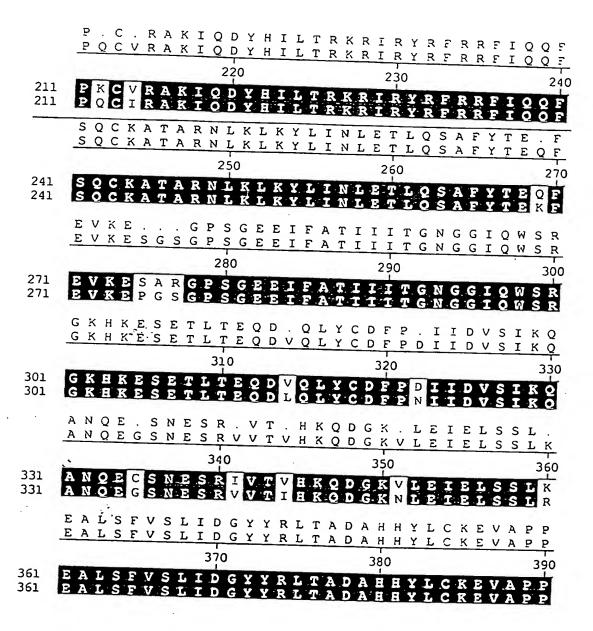
AGA CAT TTG AAA TTT CTA CAG CAA CTT GGC AAG GGT AAT TTT GGG AGT GTG GAG Arg His Leu Lys Phe Leu Gln Gln Leu Gly Lys Gly Asn Phe Gly Ser Val Glu 2949 2958 2967 ATG TGC CGG TAT GAC CCT CTA CAG GAC AAC ACT GGG GAG GTG GTC GCT GTA AAA Met Cys Arg Tyr Asp Pro Leu Gln Asp Asn Thr Gly Glu Val Val Ala Val Lys 3012 3021 AAG CTT CAG CAT AGT ACT GAA GAG CAC CTA AGA GAC TTT GAA AGG GAA ATT GAA Lys Leu Gln His Ser Thr Glu Glu His Leu Arg Asp Phe Glu Arg Glu Ile Glu 3057 3066 3075 ATC CTG AAA TCC CTA CAG CAT GAC AAC ATT GTA AAG TAC AAG GGA GTG TGC TAC Ile Leu Lys Ser Leu Gln His Asp Asn Ile Val Lys Tyr Lys Gly Val Cys Tyr 3111 3120 3129 3138 AGT GCT GGT CGG CGT AAT CTA AAA TTA ATT ATG GAA TAT TTA CCA TAT GGA AGT Ser Ala Gly Arg Arg Asn Leu Lys Leu Ile Met Glu Tyr Leu Pro Tyr Gly Ser 3165 3174 3183 3192 TTA CGA GAC TAT CTT CAA AAA CAT AAA GAA CGG ATA GAT CAC ATA AAA CTT CTG Leu Arg Asp Tyr Leu Gln Lys His Lys Glu Arg Ile Asp His Ile Lys Leu Leu 3219 3228 3237 3246 CAG TAC ACA TCT CAG ATA TGC AAG GGT ATG GAG TAT CTT GGT ACA AAA AGG TAT Gln Tyr Thr Ser Gln Ile Cys Lys Gly Met Glu Tyr Leu Gly Thr Lys Arg Tyr 3264 3282 3291 ATC CAC AGG GAT CTG GCA ACG AGA AAT ATA TTG GTG GAG AAC GAG AAC AGA GTT Ile His Arg Asp Leu Ala Thr Arg Asn Ile Leu Val Glu Asn Glu Asn Arg Val 3318 3327 3336 3345 3354 AAA ATT GGR GAT TTT GGG TTA ACC AAA GTC TTG CCA CAA GAC AAA GAA TAC TAT Lys Ile Gly Asp Phe Gly Leu Thr Lys Val Leu Pro Gln Asp Lys Glu Tyr Tyr **3**372 3381 3390 3399 AAA GTA AAA GAA CCT GGT GAA AGT CCC ATA TTC TGG TAT GCT CCA GAA TCA CTG Lys Val Lys Glu Pro Gly Glu Ser Pro Ile Phe Trp Tyr Ala Pro Glu Ser Leu 3426 3435 3444 3453 ACA GAG AGC AAG TTT TCT GTG GCC TCA GAT GTT TGG AGC TTT GGA GTG GTT CTG Thr Glu Ser Lys Phe Ser Val Ala Ser Asp Val Trp Ser Phe Gly Val Val Leu 3489 3498 3507 TAT GAA CTT TTC ACA TAC ATT GAG AAG AGT AAA AGT CCA CCA GCG GAA TTT ATG Tyr Glu Leu Phe Thr Tyr Ile Glu Lys Ser Lys Ser Pro Pro Ala Glu Phe Met 3543 3552 3561 CGT ATG ATT GGC AAT GAC AAA CAA GGA CAG ATG ATC GTG TTC CAT TTG ATA GAA Arg Met Ile Gly Asn Asp Lys Gln Gly Gln Met Ile Val Phe His Leu Ile Glu

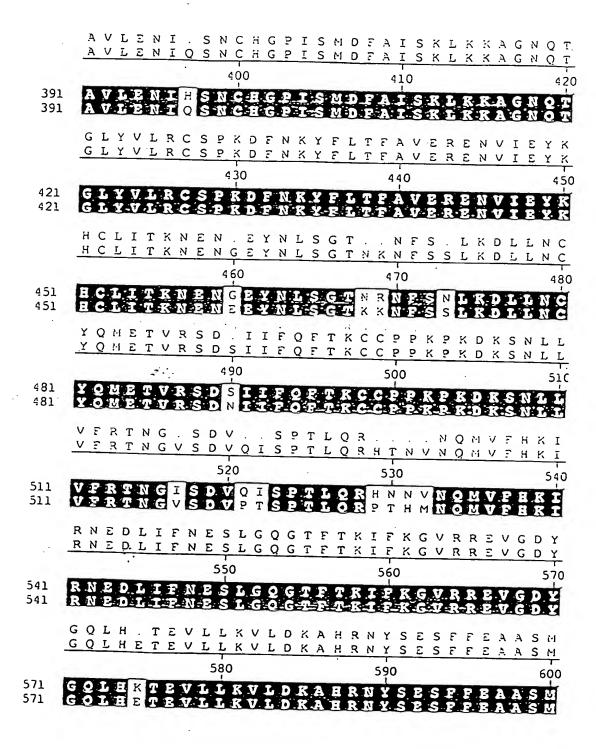
#### FIGURE 1E

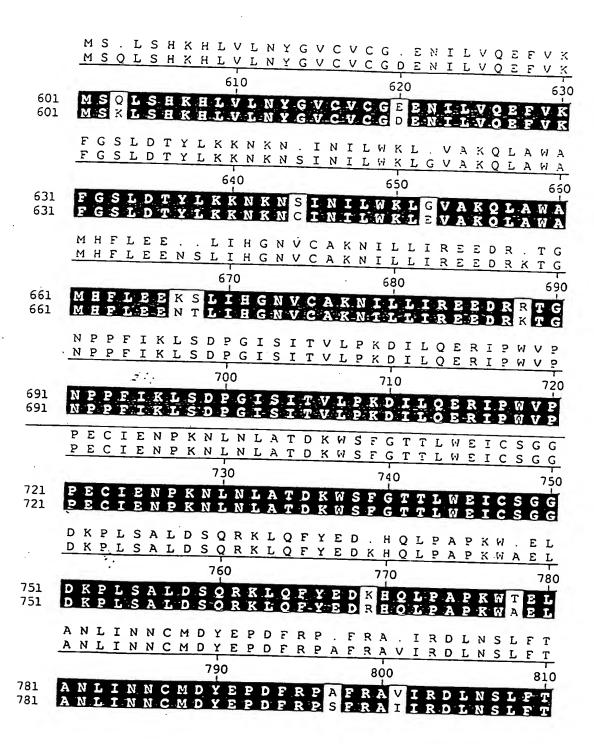
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2.

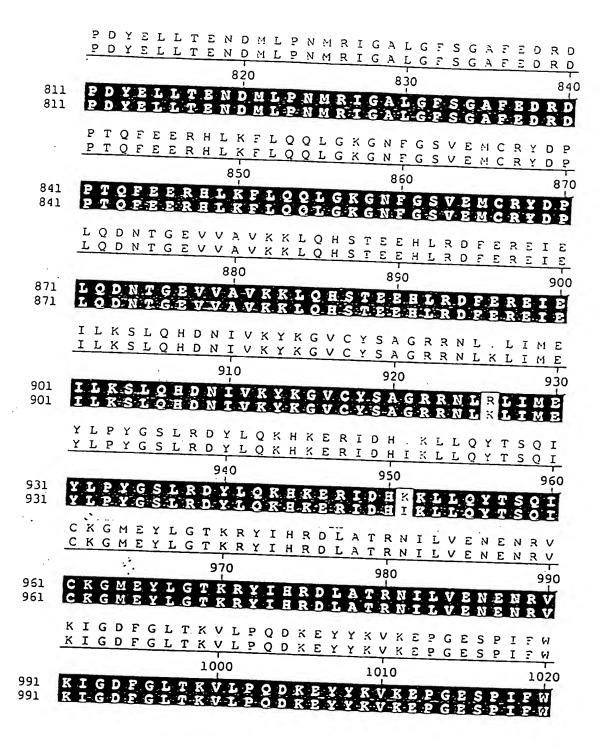








# FIGURE 2D



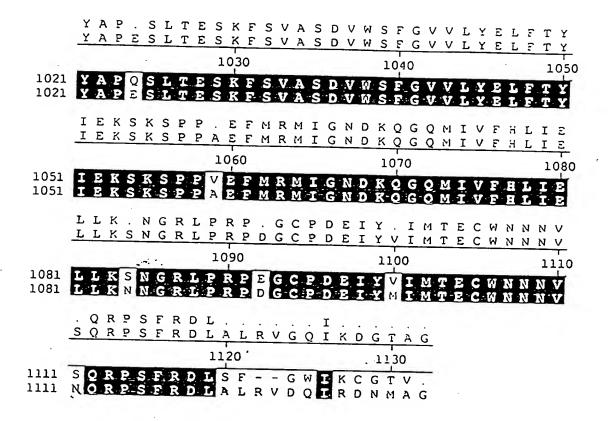


FIGURE 2F

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